INDIANA DEPARTMENT OF TRANSPORTATION

INTER-DEPARTMENT COMMUNICATION

232-6775

August 12, 2003

DESIGN MEMORANDUM No. 03-11
TECHNICAL ADVISORY

TO: **All Design, Operations, District Personnel, and Consultants**

FROM: ***/s/ Anthony L. Uremovich***
Anthony L. Uremovich
Acting Design Policy Engineer
Contracts and Construction Division

SUBJECT: **Rest Area Drinking Water and Wastewater Treatment Systems**

EFFECTIVE: **Immediately**

Where permanent facilities are provided in a rest area, an adequate drinking-water supply, and a wastewater disposal system will be required.

The designer should develop appropriate specifications and call for appropriate pay items for this additional work. The specifications should comply with the latest edition of the *Recommended Standards for Wastewater Facilities* (also called Ten State Standards), ref. Health Education Services, Albany, New York. The Environment, Planning and Engineering Division's Environmental Services Section will review and approve the specifications.

As a minimum, the specifications should include the following:

1. A dedicated drinking-water treatment system will require a security system, ozone addition for deposition of iron, chlorine treatment, phosphate treatment, and backflow prevention to prevent contamination of the stored water and the water from the well. For a purchased-water system, automated chlorine testing and addition will also be required. Drinking-water treatment should otherwise be in accordance with IAC 327.

2. A dedicated wastewater disposal system will require a testing laboratory. Wastewater treatment units will require protection from exposure to direct sunlight, covers or other means that prevent animals, bird feces, or external debris from entering the system, and shelter or other means that keeps the wastewater temperature within a specified range. Wastewater treatment should otherwise be in accordance with IAC 327 and 329.

3. A remote telemetry system will be required for the drinking-water and wastewater treatment facilities, lift stations, and at locations where the water is purchased. The remote telemetry system shall include a portable laptop computer for data access and system interaction, an operator training manual, and alarms to alert the plant operator (when the operator is both on-site and off-site) when the system's conditions are not within the required parameter limits.

4. The drinking-water treatment remote telemetry system interaction shall include the ability to automatically add treatment chemicals.

5. The computer software shall be compatible with and be able to enter data onto IDEM's report forms. The forms are accessible through IDEM's web site, at www.in.gov/idem/water/publications/appsforms.html#Municipal .

6. The drinking-water treatment system structure shall be placed at least 1.2 m (4 ft) horizontally clear of other structures.

7. The wastewater disposal system shall also include a surge control tank with dissolved oxygen sensor, garbage collection tank, fixed film media filters, sand filters, ultraviolet disinfection, diffusers, and a splitter box.

8. The wastewater disposal system garbage collection tank shall be placed upstream of the surge control tank.

9. The wastewater treatment plant design shall include an emergency shower and eyewash station, a dedicated lavatory including sink and toilet, and storage space for bathroom cleaning chemicals.

Once completed, the design of a drinking-water supply and wastewater disposal system will be subject to concurrence by the Environment, Planning and Engineering Division's Environmental Services Section. Once the Environmental Services Section concurs in the design, it will recommend the design to the IDEM. The design will be subject IDEM's approval.

alu